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#### **REMARKS**

Applicants thank the Examiner for the attention accorded the present Application in the June 1, 2006 Non-Final Office Action, in which claims 1-29 were pending. By the foregoing amendments, claims 1, 7, 10, 17-19 and 25 have been amended to more clearly specify the present invention. No new matter has been added, and the amendments are fully supported throughout the specification, as more fully described below.

Claims 1-29 are now currently pending in this Application. Based on the above amendments, Applicant respectfully submits that the rejections to these claims have been overcome. Reconsideration of this Application, and allowance of claims 1-29, is respectfully requested in view of the foregoing amendments and the following remarks.

## 35 U.S.C. § 102(b) rejections

Claims 1-3, 5, 7, 10, 14, 15 and 25 stand rejected under 35 U.S.C. §102(b) as being anticipated by Hasz. Claims 1, 2 and 8-10 stand rejected under 35 U.S.C. §102(b) as being anticipated by Draghi. Claims 25-29 stand rejected under 35 U.S.C. §102(b) as being anticipated by Rafferty. Claims 4, 8, 9 and 16 stand rejected under 35 U.S.C. §102(b) as being anticipated by Hasz, or in the alternative, under 35 U.S.C. §103(a) as being obvious over Hasz in view of Draghi. Claims 6, 17-20 and 22-24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hasz in view of Draghi. Claims 11-12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hasz in view Chesnes. Claim 13 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Hasz in view Chesnes and further in view of Rafferty. Claim 21 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Hasz in view Draghi and further in view of Schaeffer. Applicant respectfully disagrees with the Examiner's conclusion and submits that the present invention is not anticipated by, is not obvious in view of, nor is it even suggested by, any of Hasz, Draghi, Rafferty, Chesnes and/or Schaeffer.

As presently claimed in Applicant's independent claims 1, 10, 17 and 25, Applicant's invention comprises using "a rigid sintered perform having first and second layers made from different materials" for "restoring dimensions to an article" (emphasis

added). The amendments to these claims are supported by Applicant's original specification, where it is noted that (emphasis added):

Thereafter, the material of the bottom layer 26 in the form of a blended powder is pressed in a die set using conventional techniques to a suitable thickness, such as about 0.027 inch to about 0.037 inch, and the material of the top layer 24 in the form of a blended powder is sprinkled onto the pressed powder of the bottom layer 26 and the combination is thereafter pressed in the die set. The top and bottom layers 24, 26 are thereafter debinded and sintered. Debinding removes the binders from the layers 24, 26 by heating the layers 24, 26 to about 930 degrees Celsius and remaining at that temperature for about 1 hour in an argon atmosphere. Sintering consists of heating the layers 24, 26 to about 1110 degrees Celsius for about 1 hour. The sintering process produces a perform (sic) 22 having sufficient hardness to handle. Once the preform 22 is sintered, any handling of the material should maintain the cleanliness of the preform 22 (e.g. handle the preform 22 with gloves).

Furthermore, FIGS. 3-4 of Applicant's original specification show the preform as being rigid and not conforming with the surface of the airfoil before the assembly is heated.

In contrast, none of Hasz, Draghi, Rafferty, Chesnes or Schaeffer disclose utilizing a rigid sintered preform to restore dimensions to an airfoil.

Hasz discloses using a metal foil to apply a wear coating to a substrate,<sup>2</sup> not using a rigid sintered preform to restore dimensions to an airfoil. Hasz mentions:

Relatively thin foils may be somewhat flexible, and can be bent to some degree to match the curvature of a substrate. Foils of greater thickness usually are not flexible, but can be shaped by other techniques.<sup>3</sup>

However, Hasz never mentions sintering the foils to create a rigid sintered preform like Applicant claims.

Draghi discloses using multiple layers of a flexible tape to reclassify (i.e., dimensionally restore) airfoils,<sup>4</sup> not using a rigid sintered preform to restore dimensions to an airfoil. Furthermore, Draghi never mentions sintering the tape to create a rigid sintered preform like Applicant claims.

See Applicant's original specification at page 8, lines 1-12.

See Hasz, col. 2, line 62 to col. 3, line 5; and Abstract, among other places.

<sup>3</sup> See Hasz, col. 4, lines 1-5.

See Draghi, col. 2, lines 47-57.

Rafferty discloses using a "flexible and pliable" tape to repair parts having complex geometries.<sup>5</sup> Rafferty never mentions sintering the tape to create a rigid sintered preform like Applicant claims.

Chesnes discloses a powdered composition that can be used to repair superalloy articles via diffusion brazing.<sup>6</sup> Chesnes never mentions sintering the powder to create a rigid sintered preform like Applicant claims.

Schaeffer discloses using a flexible tape to repair a damaged chromium coating,<sup>7</sup> not using a rigid sintered preform to restore dimensions to an airfoil. The tape in Schaeffer is flexible enough so it is in contact with the substrate to which it is applied.<sup>8</sup> Furthermore, Schaeffer never mentions sintering the tape to create a rigid sintered preform like Applicant claims.

Therefore, none of Hasz, Draghi, Rafferty, Chesnes or Schaeffer anticipate, disclose, nor even suggest, neither alone nor in combination, using a rigid sintered preform to restore dimensions to an airfoil, as recited in independent claims 1, 10, 17 and 25 of Applicant's invention.

Based on the above arguments and amendments, Applicant respectfully submits that independent claims 1, 10, 17 and 25 of the present invention are patentably distinguished from each of Hasz, Draghi, Rafferty, Chesnes and Schaeffer. As claims 2-9 depend from claim 1, claims 11-16 depend from claim 10, claims 18-24 depend from claim 17, and claims 26-29 depend from claim 25, the discussion above applies to these claims as well. Further, these claims each include separate novel features. Thus, Applicants respectfully request that the Examiner withdraw these rejections and allow pending claims 1-29.

### **CONCLUSION**

Applicant respectfully submits that the amendments and arguments presented above successfully traverse the rejections given by the Examiner in the Office Action. For the above reasons, it is respectfully submitted that the pending claims patentably

<sup>5</sup> Sec Rafferty, col. 2, lines 47-50.

See Chesnes, col. 12, lines 48-54, among other places.

See Schaeffer, col. 6, lines 22-34 and col. 4, lines 24-42, among other places.

See Schaeffer, col. 6, lines 22-34 and FIGS. 6-7.

distinguish the present invention from the cited references. Allowance of pending claims 1-29 is therefore respectfully requested.

As this response is being timely filed within five (5) months of the mailing date of the Non-Final Office Action dated 06/01/06, Applicant believes that the only fees due are \$450 for a two (2) month extension of time. The Commissioner is authorized to charge this amount and any additional fees that may be due, or credit any overpayment, to Deposit Account Number 21-0279, Order No. EH-10992.

Should the Examiner have any questions, or determine that any further action is necessary to place this Application into better form for allowance, the Examiner is encouraged to telephone the undersigned representative at the number listed below.

Respectfully submitted,

Date: Nov. 1, 2004

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